

SPECIFICATION AMENDMENTS

Please amend the specification (~~strikethrough~~ or [[double-brackets]] indicating deletion and underline indicating insertion), as follows:

[0074] The bracket 10 has a body 16 with an opening 18 for receiving the wire in it. The opening ~~16~~18 is coextensive with the body ~~14~~16, that is, it extends the length of the body so that the opening is open at both ends of the body. Preferably, the body 16 has a gingival sidewall 20, an occlusal sidewall 22, and a lingual sidewall 24 that together form the opening 18 as a rectangular slot with its open side facing the tooth 12. In typical commercial embodiments, the bracket 10 is provided in lengths of 1.5 mm and 3mm, for use on different-sized teeth, and the opening 18 is rectangular with a cross section dimension of 0.016 x 0.024 inch. It will be understood, however, that other sizes and shapes of bodies and openings can be provided. For example, the opening may be of a cross-sectional shape that is circular, semi-circular, ovoid, or other, and/or of a closed tube design. It is understood that the rectangular shape reflects an embodiment currently preferred by most practitioners and that its purpose, to engage a force in three dimensions, may be realized by alternative shapes.

[0076] In addition, the bracket body 16 preferably includes retention wings ~~26a~~26' and ~~26b~~26" (collectively, the "wings 26") extending from it. The wings 26 serve to distribute forces imposed upon the bracket over a larger area of the adhesive component such that stresses will be less concentrated in any particular area of the adhesive thus improving the overall integrity of the attachment structure. These wings 26 extend away from the tooth surface so as to avoid creating a lever arm against the tooth surface and increasing the in/out position of the opening 18. In this configuration, the bracket 10 retains its low profile, with its width being equal to the depth of the opening 18 plus the thickness of the lingual sidewall 24 plus the horizontal extension of the wings 26.

[0077] Preferably, the wings 26 are angled relative to the rectangular opening 18 so that the bracket 10 can be positioned adjacent to or offset from a vertical or a non-vertical surface of the tooth 12 with the rectangular opening still level. More particularly, in a typical commercial embodiment, the wings 26 curve away from the tooth 12 as they extend away from the opening 18, so that if the wings were extended across the opening they would form a continuous convex surface. For example, because the bracket 10 is primarily for use on the lingual surface of incisors and other front teeth, the gingival wing-~~26b~~ 26'' extends from the gingival sidewall 20 of the body and is curved back as it extends away from the opening 18. And the occlusal wing-~~26a~~ 26' extends from the occlusal sidewall 22 of the body and is curved forward as the wing extends away from the opening 18.

[0080] Referring to FIGS. 5A – E, there are shown several of the possible alternative embodiments of the bracket 10. FIG. 5A shows a bracket 10a according to a first alternative embodiment, in which the wings-~~26a~~ 26a' and 26a'' of the body 16a have notches 28a. The notches 28a reduce the tendency of fracture planes forming in the bonding material, thereby providing increased bonding strength. Towards this end, the notches can be deeper or shallower, greater or lesser in number, and/or made in a curved, triangular, squared, or other shape, as may be desired.

[0102] Turning now to FIGS. 18-23, there is shown an exemplary method of attaching the brackets 10 to teeth 12 to form the attachments 14 and appliances 34. The method includes creating a model 52 of the teeth 12, which can be done by conventional techniques well known in the art, and providing orthodontic brackets 10 with openings for the wire. Preferably, brackets 10 of the type described herein are used, though others can be used to obtain some of the benefits of the method. Next, the brackets 10 are positioned relative to the model teeth 52, for example, with each bracket positioned and held by a grasping clip 40, which is moved into position and held there by a positioning tool or device 50, as shown in FIG. 18. The positioning tool or device 50 is preferably of the type disclosed in U.S. patent application Ser. No. 10/750,194_____, filed on Dec. 31, 2003, and entitled "Orthodontic Bracket Positioning Device And Method," which in its entirety is hereby incorporated herein by reference. Alternatively, the positioning tool or device may be of a conventional type known in the art, such as that disclosed by U.S. Pat. No. 4,812,118 to Creekmore, which in its entirety is hereby incorporated herein by reference.